DOCKET NO.: MSFT-1797 (303687.01)
Application No.: 10/610,690
Office Action Dated: September 22, 2008

PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116

REMARKS

Claims 1-15 and 20-22 are pending in the application. The Office has rejected claims 21 and 22 under § 102 as allegedly being anticipated by "Random Numbers" by Duckworth ("Duckworth"). Claims 1-15 and 20 have been rejected under § 103 as allegedly being unpatentable over "Quickly Generating Billion-Record Synthetic Databases" to Gray et al. ("Gray") in view of Duckworth.

By the amendments above and remarks following, the Applicants traverse all rejections and request further examination of the application.

REJECTIONS UNDER § 112

The Office has rejected claim 21 for alleged formalities. Without disclaimer or prejudice, claim 21 has been amended, which also removes the rejection of claim 22. The Applicants request reconsideration and withdraw of the rejection to claims 21 and 22 under § 112.

REJECTIONS UNDER § 102

The Office has rejected claims 21 and 22 as allegedly being anticipated by Duckworth.

Independent claim 21

As a first matter, the Applicants wish to note that the Office has cited two full pages of Duckworth for the alleged anticipation of this recitation without specifically citing the portion or portions of Duckworth that disclose this recitation so the Applicants. The Applicants respectfully object to this, as with the remaining 102 rejections, as the Applicants are forced to guess which portions of Duckworth may be applicable in order to respond to the rejection.

The use of a "seed" as described by Duckworth must be clarified with respect to the claimed subject matter. As disclosed by Duckworth, if a random function generator is called ("Rnd" in Duckworth), the same series of data will be returned, starting from the initial position (as determined by the random generator) to the end position. In other words, Duckworth discloses that the random generator of Duckworth will start at the beginning and end at the end. [Duckworth: pg. 2, "Initializing the Random Numbers"]. Duckworth goes on

to disclose another function that is called to avoid always starting at the beginning, "Randomize", which uses a process of "seeding". As disclosed by Duckworth, the seeding process of Duckworth is used to start the random function generator at a different position than without the seed. "By replacing 123 with a different seed value, the starting point...changes...." [Duckworth: pg. 2, "Repeating Random Numbers"]. Thus, the seed of Duckworth is used to merely start the sequence off at a different point. Duckworth does not disclose, either implicitly or explicitly, any more information about the seed.

In the present application, the seed is used to regenerate a specific number or numbers of a generated sequence. In other words, the seed is not used to start the random function generator at a different position. Rather, the seed of the present application is used to extract (regenerate) a specific number (or data) from the generated data. In order to perform that function, a determination must be made about how a certain seed value may be used to go to a specific point in a set of random numbers. This requires a level of determination that is clearly not disclosed in Duckworth.

With specific application to the rejections, Duckworth, as best understood, does not disclose, either explicitly or inherently, that the random numbers that are generated "represent a numerical position". The reason is obvious. The level of disclosure provided by Duckworth stops at just the randomization of numbers, and goes no further. In other words, Duckworth is merely discussing how random numbers are generated but does not go any further than that. As recited in claim 21, the numerical position that is determined is used to determine a seed value that will regenerate the data at that numerical position. In other words, the data is generated, a numerical position is determined, then a seed is determined that will regenerate the data at that numerical position. This is recited in claim 21 as, "determining a first seed value corresponding to a first numerical position of the random sequence of values." Duckworth does not disclose how the seed value may be determined and disclosed that the seed value is used to start the random generate at a different starting position. In other words, the seed of Duckworth is not the same as the seed of claim 21.

Because Duckworth fails to teach the seed of claim 21, it follows that Duckworth fails to disclose the remaining recitations of claim 21 wherein the seed value is used to regenerate a specific value from the random data generator.

The Applicants assert that because the seed value and its use as disclosed by
Duckworth is not the same as the seed value and its use as disclosed by claim 21, Duckworth
does not anticipate claim 21. The Applicants request reconsideration and withdraw of the
rejection to claim 21.

Dependent claim 22

By reason of its dependence upon allowable base claim 21, and by reason of its use of
a different seed than Duckworth, it follows that claim 22 is also allowable. The Applicants
request reconsideration and withdraw of the rejection to claim 22.

REJECTIONS UNDER § 103

Claims 1-15 and 20 have been rejected under § 103 as allegedly being obvious over
Gray in view of Duckworth. The Applicants first note that Gray is directed to methods to
generate a large database (random numbers) quickly. "The Goal here is to quickly generate a
large database by using parallel algorithms and execution." [Gray: pg. 243, "Introduction"].
In other words, Gray, like Duckworth, is merely disclosing generating random numbers, and
nothing further. Gray does not disclose how a seed may be determined and merely discloses,
like Duckworth, that a seed is used to start the random sequence at a point other than the
beginning.

Independent claim 1

As recited in claim 1, the seed used is determined by first generating the random
numbers, determining a position for a specific data, then determining a seed value that will
regenerate the specific data. In other words, the recitations of claim 1 (as with claims 21 and
22 above) are directed to methods that occur after the random sequence is generated, whereas
both Gray and Duckworth are directed to methods that occur prior to the generation of the
random sequence. As stated in the Introduction of Gray, "[t]he Goal here is to quickly
generate a large database by using parallel algorithms and execution." *Id*. Thus, even though
Gray does not explicitly disclose the purpose of the "seed" in either program 6 or program 8,
based upon the Introduction, it can reasonably be assumed that the seed is used to generate

large data sets, and not to regenerate a specific data point from a specific position in the data set.

Much like Duckworth, as discussed above, the seed in Gray is used to change the data being generated. The seed of Gray is used as an input to the random function generator to produce an output (data), as shown in Program 6 and its accompanying description. To generate "random" data, the seed value is changed, as shown by way of example in Program 8. This would correspond to the Office's characterization of the use of a seed in Gray. As stated by the Office in its "Response to Arguments" in the present Action, "[t]his I [seed] is seen as changing within the range of 0-N as is used as a parameter of the data generation module.

Thus, as disclosed by Gray and as admitted to by the Office, the seed of Gray is changed to generate "random" numbers (i.e. pseudo-random), thus providing for a large data set having pseudo random numbers or data. As with Duckworth, the use of a seed as disclosed by Gray is not the same use as a seed as recited in claim 1. More specifically, the seed of Gray is used to generate the random data, whereas the seed as recited in claim 1 is used to regenerate the data at a specific position in the previously generated random number sequence. The seed is determined by calculating the number that would regenerate the data for a specific position in a randomly generated sequence.

Further, Gray specifically teaches away from the present invention. As disclosed by Gray, "[t]he Goal here is to quickly generate a large database by using parallel algorithms and execution." The recitations of claim 1 are for regenerating a specific data point in a specific position. Thus, while Gray is directed to generating a large database, the recitation of claim 1 is directed to generating a specific number.

Because Gray, either alone or in combination with Duckworth, fail to disclose all recitations of claim 1, and because Gray teaches away from the recitations of claim 1, Gray, either alone or in combination with Duckworth, fails to render claim 1 unpatentable. The Applicants request reconsideration and withdraw of the rejection to claim 1.

Independent claims 11 and 20

For at least the reasons discussed above with regards to claim 1, Gray and Duckworth, either alone or in combination with each other, fails to disclose all recitations of claims 11

and 20. The Applicants request reconsideration and withdraw of the rejection to claims 11 and 20.

Dependent claims 2-10, and 12-15

At least by reason of their dependence upon an allowable base claim, it follows that claims 2-10, and 12-15 are also allowable. The Applicants request reconsideration and withdraw of the rejections to claims 2-10, and 12-15.

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CONCLUSION

By the remarks and the amendments provided herein, the Applicant respectfully submits that the Office Action mailed September 22, 2008 has been traversed and that the application is in condition for allowance. If the Examiner has any concerns regarding the response provided herein, or wishes to discuss the response further, the Examiner is invited to contact the undersigned attorney.

Respectfully submitted,

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